

WHAT IS CLAIMED IS:

1. A system for coupling a tool to a machine, comprising:
  - a coupler body comprising:
    - first and second opposed coupler sidewalls,
    - a plurality of transverse members, each of which is coupled to the first and second opposed side walls, and
    - a first coupler boss member positioned between the first and second opposed side walls, the first coupler boss member having a principal axis running substantially parallel to the first and second opposed coupler side walls;
    - an attachment member comprising:
      - first and second opposed attachment member sidewalls, each of the first and second opposed attachment member sidewalls defining a plurality of attachment member slots sized and positioned to receive the plurality of transverse members, and
      - an attachment boss member positioned between the first and second opposed attachment member sidewalls, the attachment boss member having a principal axis running substantially parallel to the first and second opposed attachment member side walls; and
    - a lock pin sized to be accepted by the first coupler boss member and the attachment boss member,
  - wherein when the plurality of transverse members are positioned within the plurality of attachment member slots, the first coupler boss member and the attachment boss member align to accept the lock pin, the lock pin securing the position of the attachment member relative to the coupler body.
  2. The system of claim 1, further comprising a retainer pin, the retainer pin securing the lock pin in place when the lock pin is securing the position of the attachment member relative to the coupler body.

3. The system of claim 2, further comprising a second coupler boss member positioned between the first and second opposed side walls, the second coupler boss member being substantially in line with the first coupler boss member and sharing the same principal axis, the second coupler boss member being sized to accept the lock pin.

4. The system of claim 3, wherein each of the plurality of transverse members comprises:

a pin extending between the first and second opposed coupler sidewalls;  
a first pin boss for operatively connecting the pin to the first coupler sidewall; and  
a second pin boss for operatively connecting the pin to the second coupler sidewall.

5. The system of claim 4, wherein each of the first and second pin bosses for each of the plurality of transverse members contact one of the plurality of attachment member slots when the position of the attachment member is relative to the coupler body.

6. The system of claim 3, wherein the coupler further comprises a coupler slot between the first and second coupler boss members, permitting the attachment boss member to be positioned between and aligned with the first and second coupler boss members.

7. The system of claim 1, wherein the attachment member is coupled to a bucket.

8. The system of claim 1, wherein the attachment member is coupled to a grapple.

9. A coupler system for coupling a tool to an attachment member including first and second attachment side walls, each of which include a plurality of attachment member slots sized and positioned to receive the plurality of transverse members, with an attachment member boss fixedly secured to the attachment member, the coupler system comprising:

a coupler including first and second coupler side walls joined by a lower coupler wall, the first and second side walls defining a primary axis therebetween;

a plurality of coupler bosses fixedly attached to the lower coupler wall, the plurality of coupler bosses being positioned substantially in-line with each other along the primary axis;

a plurality of transverse members each coupled to the first and second coupler side walls; and

a lock pin sized to be accepted by the plurality of coupler boss members and the attachment boss member,

wherein when the plurality of transverse members are positioned within the plurality of attachment member slots, the plurality of coupler boss members and the attachment boss member align to accept the lock pin, the lock pin securing the position of the attachment member relative to the coupler.

10. The coupler system of claim 9, wherein the plurality of coupler boss members consist of two coupler boss members.

11. The coupler system of claim 10, wherein the coupler further includes a coupler slot between the coupler boss members sized and positioned such that the attachment boss member can fit through the coupler slot to align with coupler boss members.

12. The coupler system of claim 9, wherein each of the plurality of transverse members comprises:

a pin extending between the first and second coupler sidewalls;  
a first pin boss for operatively connecting the pin to the first coupler sidewall; and  
a second pin boss for operatively connecting the pin to the second coupler sidewall.

13. The coupler system of claim 12, wherein each of the first and second pin bosses for each of the plurality of transverse members contact one of the plurality of attachment member slots when the position of the attachment member is relative to the coupler.

14. The coupler system of claim 9, further comprising a retainer pin, the retainer pin securing the lock pin in place when the lock pin is securing the position of the attachment member relative the coupler.
15. The coupler system of claim 9, wherein the attachment member is coupled to a bucket.
16. The coupler system of claim 9, wherein the attachment member is coupled to a grappler.
17. A method of removably coupling a tool to a machine, comprising the steps of:  
providing a coupler comprising:  
first and second coupler side walls joined by a lower coupler wall, the first and second side walls defining a primary axis therebetween,  
a plurality of coupler bosses fixedly attached to the lower coupler wall, the plurality of coupler bosses being positioned substantially in-line with each other along the primary axis, and  
a plurality of transverse members each coupled to the first and second coupler side walls;  
providing an attachment member comprising:  
first and second attachment side walls, each of the first and second attachment side walls comprising a plurality of attachment member slots, and  
an attachment member boss positioned between the first and second attachment side walls;  
mating the plurality of transverse members with the plurality of attachment slots; and  
inserting a lock pin through the plurality of couplers and the attachment member boss, securing the position of the attachment member relative to the coupler.
18. The method of claim 17, further comprising the step of securing the lock pin with a retainer pin.

19. The method of claim 17, wherein the attachment boss member passes through a coupler slot between the coupler boss members in order to align with the coupler boss members when the plurality of transverse members are mated with the plurality of attachment slots.

20. The method of claim 17, wherein each of the plurality of transverse members comprises:

- a pin extending between the first and second coupler sidewalls;
- a first pin boss for operatively connecting the pin to the first coupler sidewall; and
- a second pin boss for operatively connecting the pin to the second coupler sidewall.